

To begin with, on page 3 of the outstanding Office Action, the Examiner alleges Nishio to disclose an insulating layer 505 having a first opening referring to FIG. 9B. Upon close review of Nishio, the layer denoted as “505” is disclosed in Nishio as a “luminescent layer” (e.g., see col. 16, lines 3-4). Embodiment 6 (beginning at col. 15, line 26 of Nishio) discloses that a charge stored in the capacitance layer 507 flows into the luminescent layer 505 and the luminescent layer has “a hole transporting layer 5a formed on the side of the pixel electrode 2, an electron transporting layer 5c formed on the side of the common electrode 4” (e.g., see FIG. 3 and related description). Thus, the luminescent layer of Nishio cannot be considered as “an insulating layer,” as recited in independent claims 1-8 of the present invention.

To establish anticipation under 35 U.S.C. § 102(b), the Examiner must show that each and every feature recited in these claims is either explicitly disclosed or “necessarily present” in a single prior art reference, such as within the four corners of the Nishio patent. *See* M.P.E.P. § 2131(7th ed. 1998); *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999); *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1269 (Fed. Cir. 1991). To support a conclusion of anticipation, the Examiner must specifically identify “substantial evidence” setting forth why and how the single prior art reference anticipates each and every feature recited in the claims. *See In re Mullin*, 481 F.2d 1333, 1336-37 (CCPA 1973) (An Examiner’s bare assertion that claims were obviously anticipated by a reference did not inform the Applicant as to why the claims lacked novelty); *Dickinson v. Zurko*, 527, U.S. 150 (1999) (The U.S. Patent Office’s findings of fact must be reviewed by the substantial evidence standard).

Viewed against this backdrop, each of the Examiner’s factual conclusions must be supported by “substantial evidence” in the documentary record. *See In re Lee*, 61 U.S.P.Q.2d

1430, 1432 (Fed. Cir. 2002). The Examiner has the burden of documenting all findings of fact necessary to support a conclusion of anticipation or obviousness “less to ‘haze of so-called expertise’ acquire insulation from accountability.” Id. To satisfy this burden, the Examiner must specifically identify where support is found within the prior art to meet the requirements of 35 U.S.C. §§ 102(b). In this case, however, the Examiner cannot satisfy his burden of demonstrating how Nishio, taken alone or in combination with any other prior art reference, can either render obvious each and every one of the limitations present in independent claims 1-8 as required by the Manual of Patent Examining Procedure (“MPEP”) and Federal Circuit jurisprudence.

Furthermore, Nishio suggests a surface of the insulating layer ((505) as defined by the Examiner) and the first conductive layer (501b) is planarized and a uniform surface based on the manufacturing method cited in col. 16, lines 15-21. Accordingly, Applicant challenges the assertion that a planarized and a uniform surface of the Al metal 501b and organic EL element layers can be formed by only stacking the aforementioned layers.

In fact, the Examiner readily allows for the notion that Nishio fails to teach the planarized and uniform surface for the conductive and insulating layers. In an attempt to cure the deficiencies of Nishio, the Examiner turns to the disclosure of Chen for teaching chemical mechanical polishing (CMP). Chen is related to a method for manufacturing a metal plug. A substrate 100 having an insulation layer 110 is disclosed in FIG. 1A. An opening 120 is formed in the insulation layer 110. As shown in Fig. 1B, a conformal barrier layer 130 is formed over the insulation layer 110 and the sidewalls of the opening 120.

As instructed in MPEP § 2143, three criteria must be met to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the

references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references (or references when combined) must teach or suggest all the claim limitations. In the instant case, Applicant, at least, not only questions the suggestion or motivation to combine the reference teachings but also the reasonable expectation of success.

To begin with, Nishio and Chen utilize entirely different materials. For example, Nishio employs a luminescent layer 505. Chen utilizes an insulation layer 110 and a barrier layer 130. In addition, the forming order is different for both of the purported references. Nishio discloses forming an Al metal 501 first and then the organic EL element layers. In contrast, Chen discloses forming the insulation layer 110 first and then the metal plug 150. The Examiner recites the reason for combining the alleged references is to reduce production cost, shorten production time, and consequently increase productivity. However, Applicant vehemently challenges the purported prior art combination, because the production cost will be higher and the production time will be longer by employing the CMP method. It is further noted that Nishio fails to recite the need of a planarized and a uniform surface and, hence, Applicant contents that there is no motivation to combine the documents as suggested by the Examiner.

Because the Nishio and Chen patents are directed to entirely different objectives, and the proposed modification of Nishio would render the prior art unsatisfactory for its intended purpose, there is not even a hint of suggestion or motivation to modify the formation process of Nishio by a CMP method as proposed by the Examiner. While reasonable expectation of success would also be absent, it should be sufficient to show that the prior art lacks any

teaching or suggestion whatsoever for the proposed combination, and in fact, would appear to teach away from the present invention by producing another and entirely different entity.

With respect to independent claims 3, 4, 7 and 8, and in view of the above arguments related to the Examiner's purported designation of the alleged insulating layer, Applicant asserts Nishio's fail to disclose, *inter alia*, "*the second insulating layer . . . over the third conductive layer*," as recited in the claims.

For anticipation under 35 U.S.C. § 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present (M.P.E.P. 706.02). Since each and every element, as set forth in the claims are not found either expressly or inherently described as required by the M.P.E.P., Nishio cannot be said to anticipate the invention as claimed. Hence, withdrawal of the rejection is respectfully requested.

In accordance with the M.P.E.P. § 2143.03, to establish a *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 409 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 196 (CCPA 1970). Therefore, it is respectfully submitted that neither Nishio nor Chen, taken alone or in any proper combination, discloses or suggests the subject matter as recited in claims 1-8. Hence, withdrawal of the rejection is respectfully requested.

Each of the dependent claims depend from one of independent claims 1-8 and are patentable over the cited prior art for at least the same reasons as set forth above with respect to claims 1-8. In addition, each of the dependent claims also recites combinations that are separately patentable.

Claims 11-12 were rejected under 35 U.S.C. §103(a) as being unpatentable over Nishio in view of Yamazaki et al. (U.S. Patent Application Publication No. 2002/0132393 A1, hereinafter “Yamazaki”). Claims 13 and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Nishio. Claims 14-15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Nishio in view of Young (U.S. Patent Application Publication No. 2001/0013913 A1). However, each of the aforementioned dependent claims rely upon one of independent claims 1-8 which recite a specific combination of features that distinguishes the invention from Nishio in different ways as outlined above. At the very least, Nishio fails to disclose or suggest any of these exemplary features recited in independent claims 1-8.

The secondary references directed to Yamazaki and Young fail to cure the deficiencies of Nishio by disclosing the missing elements thereof (as outlined above). In accordance with the M.P.E.P. § 2143.03, to establish a *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 409 F.2d 981, 180 USPQ 580 (CCPA 1974). “All words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 196 (CCPA 1970). Therefore, it is respectfully submitted that neither Nishio, Yamazaki, nor Young, taken alone or in any proper combination, discloses or suggests the subject matter as recited in claims 1-8. Hence, withdrawal of the rejection is respectfully requested.

Each of the dependent claims depend from one of independent claims 1-8 and are patentable over the cited prior art for at least the same reasons as set forth above with respect to claims 1-8. In addition, each of the dependent claims also recites combinations that are separately patentable.

In view of the foregoing remarks, this claimed invention, as amended, is not rendered obvious in view of the prior art references cited against this application. Applicant therefore requests the entry of this response, the Examiner's reconsideration and reexamination of the application, and the timely allowance of the pending claims.

In discussing the specification, claims, and drawings in this response, it is to be understood that Applicant in no way intends to limit the scope of the claims to any exemplary embodiments described in the specification and/or shown in the drawings. Rather, Applicant is entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation, and applicable case law.

Except for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 19-2380. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Should the Examiner believe that a telephone conference would expedite issuance of the application, the Examiner is respectfully invited to telephone the undersigned patent agent at (202) 585-8316.

Respectfully submitted,

NIXON PEABODY, LLP

/Marc W. Butler, Reg. No. 50,219/
Marc W. Butler
Registration No. 50,219

NIXON PEABODY LLP
CUSTOMER NO.: 22204
401 9th Street, N.W., Suite 900
Washington, DC 20004
Tel: 202-585-8000
Fax: 202-585-8080